REMARKS

A. Introduction

Claims 1-4 and 9-17 were pending and under consideration.

In the Office Action of December 20, 2007 ("the Office Action"), claim 14 was objected to for a minor error, the rejections of claims 1-4 and 9-13 were maintained, and the rejection of claims 14-17 are new.

In response and without conceding to the merits of the rejections, claims 1, 9, 13, and 14 have been amended to more clearly recite aspects of the present general inventive concept. Claims 18-20 are new. No new matter has been added.

In view of the following remarks, reconsideration and allowance of all the pending claims are requested.

B. Objections

Claim 14 was objected to for a minor error, which is remedied by the present amendment. Accordingly, withdrawal of the objection is respectfully requested.

C. Rejection under 35 USC §102(b)

Claims 1-4 and 9-13 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,272,648 to Agrawal et al. (hereinafter "Agrawal"). The rejections are traversed for at least the following reason. None of the references cited by the Examiner discloses or suggests all the limitations now present in independent claims 1, 9, and 13.

With respect to independent claims 1, 9, and 13, on page 2 and 3 of the Office Action, the Examiner alleges that Agrawal discloses all of the limitations of the invention as recited in independent claim 1. However, Agrawal does not disclose or suggest, among other things, "wherein rounding off means rounding a value to a digit of an order which is higher than the lowest order digit of the value" as recited in newly amended independent claims 1, 9, and 13. Rather, Agrawal is limited to "discarding" and fails to describe, *inter alia*, "rounding up." In

particular, Agrawal provides "[t]he output from the adder 62 is applied to a word length reduction circuit 63…[that] operates to provide the output signal Zn by simply discarding the M least significant bits." *See* Agrawal, Col. 7, Lines 12-20. The present inventive concept is distinguishable from Agrawal because Agrawal is not capable of, *inter alia*, rounding up during the discarding process. A rounded number is defined as a number having about the same value as the number you start with, but it is less exact, e.g., 11.3572 *rounded* up or off to two decimal places becomes 11.36. Inversely, *discarding* does not affect the remaining portion of the number, i.e., the remaining number is not *rounded*. As such, because component 63 merely discards "the M least significant bits," component 63 cannot be used for "extracting a necessary high-order part by rounding off a result of the operation performed by the operation means," as recited in independent claim 1. The Examiner's argument that "discarding is a type of rounding off" has no merit. *See* the Office Action, page 7. Rounding is an unambiguous term for which the definition is clear. A number capable of being rounded may be rounded in either direction. As such, the Examiner's argument that discarding is the same as rounding is a mockery of the English language.

Further, the Examiner acknowledges that Agrawal's discarding is deficient based on the rejection of claim 14, which recites "low-order part extraction means for extracting a necessary low-order part by rounding off the result of the operation performed by the operation means." The Examiner rejects this language via U.S.C. 103 and provides the motivation that "it would reduce error in average." *See* the Office Action, page 6. Given the rejection of claim 14, it is clear that the Examiner acknowledges that Agrawal does not round. Thus, Agrawal does not anticipate claim 1.

The rejection of claim 1 contains further deficiencies. Regarding the language "difference calculation means for calculating the difference between the result of the operation performed by the operation means and the high-order part extracted by the high-order part extraction means," the Examiner merely points to "component 64 in Figure 3." *See* the Office Action, Page 5. In addition to the fact that Figure 3 does not sufficiently convey the manner in which element 64 operates to provide legitimate grounds for rejecting the recited language,

Agrawal only describes component 64 as "a summing network 64 where [Zn of N bits] are added to the output of the summer 62...[and] operates to provide the signal e(n) which is the instantaneous error introduced by circuit 63 and indicative of the least significant bits M." *See* Agrawal, Col. 7, Line 66-Col. 8, Line 5. Because component 64 merely "sums" or adds Zn of N bits to the output of 62, component 64 cannot be used for "calculating the difference between the result of the operation performed by the operation means and the high-order part extracted by the high-order part extraction means," as recited in independent claim 1.

In attempt to reject the language "feedback means for adding, to a next input digital signal, the difference value calculated by the difference calculation means or a value obtained by performing a predetermined operation on the difference value calculated by the difference value calculation means," the Examiner merely points to "feedback as seen in Figure 3 wherein the error is feedback to the adder 62 through delay element 65 to the next sample." *See* the Office Action, Page 5. In addition to the fact that Figure 3 does not sufficiently convey the manner in which element 65 operates to provide legitimate grounds for rejecting the recited language, Agrawal only describes component 65 as "a register for transferring the bits to be added to summer 62 at the proper level and time" *See* Agrawal, Col. 8, Lines 41-43. Because component 65 merely transfers bits, component 65 cannot be used for "feedback means for adding, to a next input digital signal, the difference value calculated by the difference calculation means or a value obtained by performing a predetermined operation on the difference value calculated by the difference value calculation means," as recited in independent claim 1.

Accordingly, because Agrawal does not disclose or suggest all of the elements set forth in independent claim 1, independent claim 1 is patentably distinguishable over Agrawal, and withdrawal of this rejection and allowance of this claim are respectfully solicited. Likewise, claims 2-4, which depend from independent claim 1, and thus include all of the limitations of independent claim 1, are also patentable over Agrawal. The Examiner rejects independent claims 9 and 13 by merely referencing the grounds for rejecting independent claim 1. However, because the grounds for rejecting independent claim 1 are flawed, as pointed out above, the grounds cannot be used for rejecting independent claims 9 and 13. As such, withdrawal of

these rejections and allowance of these claims are respectfully requested.

Claims 1-4 and 9-13 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,272,648 to Agrawal, et al. (hereinafter "Agrawal"). Reconsideration and withdrawal of the rejections are requested.

D. Rejection under 35 USC §103

Claims 14-17 are rejected as being unpatentable over Agrawal in view of the admitted prior art (AAPA). The rejections are traversed for at least the following reasons.

While the Examiner argues that the AAPA provides for all of the claimed limitations, the Examiner does not give weight to all of the limitations recited in the claims. For instance, claims 14 and 15 recite a "low-order part extraction means," which is not provided by AAPA.

Further, the Examiner's motivation to combine Agrawal with AAPA is flawed. The motivation merely states that one would be motivated to combine such because "it would reduce error in average." *See* the Office Action, page 6. This motivation does not provide any benefits to adding a low-order part extraction means, and therefore fails to provide any motivation for adding this additional element. Further, the Examiner has not clearly pointed out where Agrawal discloses a high-order part extraction means, as recited in claim 1. Thus, neither Agrawal nor AAPA provide any motivation to utilize both a high-order part extraction means and a low-order part extraction means.

Accordingly, for at least the reason above, Applicant submits that claims 14-17 are patentable over the art of record and allowance of claims 14-17 is respectfully requested.

E. New Claims

New claims 18-20 have been added. Support for the new claims can be found in the specification and drawings, for example, on page 6, last paragraph, and page 9, last paragraph through page 11, first paragraph of the Specification. New claims 18-20 recite features, which are not disclosed, taught, or suggested in the prior art of record.

Accordingly, it is respectfully submitted that new claims 18-20 do not present new

matter and are allowable over the prior art of record, and allowance of these claims is earnestly solicited.

F. Conclusion

It is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, there being no other objections or rejections, this application is in condition for allowance, and a notice to this effect is earnestly solicited.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 19-3140.

Respectfully submitted,
SONNENSCHEIN NATH & ROSENTHAL LLP

By /Adam C. Rehm/
Adam C. Rehm, Reg. No. 54,797
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, IL 60606-1080
816-460-2542 (telephone)
816-531-7545 (facsimile)

ATTORNEYS FOR APPLICANT